Verizon's newest UNE rates to provide an adequate margin for competition.[6/] And, to repeat, even if, arguendo, the New York prima facie case could be imported wholesale into Massachusetts, still competitors here have had no opportunity to rebut that case, and there is as yet no record to be rebutted.

In sum, whatever Verizon's strategy, this application should be denied because Verizon fails to offer adequate proof on what it knows to be one of the central issues in the case.

1. Verizon's Switching Rates Are Not Cost-Based or Reasonable.

The failure of Verizon's current switching rates – those operative today and in place when Verizon filed this application – to meet the cost-based standard set by Congress is demonstrable from every relevant vantage point. First, from the vantage point of Verizon's Massachusetts cost studies, the assumptions and inputs Verizon used are unjustified and unjustifiable – and inconsistent with assumptions and inputs the Commission, other ILECs, and even Verizon have used in estimating the cost of providing local switching in other states and proceedings.

Second, from a wider vantage point, Verizon bases its UNE rates on an estimated cost of the switch plant needed to serve Massachusetts that is more than four times the estimate calculated by this Commission. Indeed, Verizon's UNE rates are based on an overall estimate that is more than four times its own historic, embedded costs – as reported by Verizon itself to this Commission.

6/ We share below our preliminary assessment that these new rates are in fact not adequate for widespread competition. See infra p. 33 n.45. Not even a preliminary assessment is possible on the host of other issues relevant to TELRIC analysis. As our analysis of the DTE rates set out below makes clear, the question of whether the various inputs that support a rate are set within a reasonable range is complex and calls for detailed analysis that cannot be accomplished overnight.

Verizon's switching and port rates are not just a little too high, they are quadruple what they would be if legitimately based on cost, as Congress directed. Verizon attempted to side-step this failure to comply with the preconditions for section 271 authorization by entering into a negotiated interconnection agreement with Z-Tel and then offering the same "promotional" rates to others. But this is a wholly inadequate attempt to cure for a number of reasons. As a matter of law, the so-called Z-Tel rates cannot satisfy the cost-based standard because they are not based on any cost estimates or calculations, and Verizon does not pretend otherwise. The Z-Tel rates are made up of numbers arbitrarily plucked from the air.

In any event, the Z-Tel switching rates remain far higher than cost-based rates. First, the Z-Tel agreement does not even offer a "promotional" rate for analog switch ports. Thus, the only rates available for analog ports are the dramatically inflated rates proposed by Verizon and adopted by the DTE.[7/] Second, as we show in what follows, even those per minute switching rates that are covered in the Z-Tel agreement are not reduced to cost-based levels. Verizon has offered urban rates reduced by 30% and suburban rates reduced by 35%, whereas reducing the rates to a genuinely cost-based level would require cutting the lower Z-Tel rates by at least two-thirds.

The FCC need not undertake to set the appropriate rates in this proceeding. The statute requires only that the Commission assess whether Verizon has proved that its rates are within a range that would result from reasonable application of the standard Congress and the FCC established. By all the evidence – from any vantage point – it is clear Verizon has not provided such proof..

7/ The Z-Tel agreement also offers no alternative to the per minute switching rate in the most dense "Metro" region of the state.

a. Verizon's switching rates are based on unexplained and unjustifiable inputs and assumptions rejected by the FCC and other states.

Many of the inputs and assumptions underlying Verizon's switching usage and port rates cannot be reviewed at all. Notably missing in Verizon's comments, declarations, and volumes of CD-ROMs is any coherent description of the way in which its unbundled switching rates are derived from the forward-looking cost – indeed any cost – of providing the switching. Verizon's defense of its switching rate is that it derives from Telcordia's (formerly Bellcore's) Switching Cost Information System ("SCIS") – a proprietary engineering cost model upon which Verizon relied in developing its rates. To the question – "why is this input set at this number?" Verizon's answer is "that is how it came out of the SCIS."[8/] The SCIS model is not in the record, the algorithms and many of the inputs are thus unknown to regulators and potential competitors, and Verizon made no effort to defend any of the SCIS outputs. Bryant Decl. ¶ 16. Because Verizon relies on figures that cannot be analyzed, and does not even attempt to provide any other defense of its rates, it has failed to meet its burden of proving that its pricing is based on the cost of providing switching. The Commission has previously rejected switching models that rely on SCIS because "the defaults used to generate the results . . . have not been placed on the record in this proceeding." In re Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Fifth Report & Order, 13 F.C.C.R. 21323, ¶ 78 (1998). It should do the same here, for as to many issues, there is simply no way to know which inputs and assumptions could be found questionable, if they were available to be questioned.

8/ See NYNEX's Revised Version of Anglin's Test. at 15 (VZ-MA App. H, Tab 97).

Nonetheless, even within the limits imposed by Verizon's choice to rely on a secret cost model, WorldCom has been able to identify seven unreasonable inputs and assumptions that significantly inflate Verizon's Massachusetts switch-related rates. These involve calculations performed by Verizon on the numbers that emerge from the SCIS model. Because these calculations can be rerun using numbers and assumptions that are consistent with the findings of this Commission, other ILECs, and Verizon in other states, it is possible to determine the impact of replacing these unreasonable values with reasonable ones. Bryant Decl. ¶¶ 17-18.

As we demonstrate in what follows, correcting these seven errors alone would reduce the Verizon Massachusetts rate for analog ports by more than 77% and the rate for switching usage by 63% to 67%, depending on geographic zone. Bryant Decl. ¶ 18 (tables). In other words, taking into account only these seven errors, Verizon's port rates are more than four times higher than cost-based rates, and its switching usage rates are about three times higher than cost-based rates.[9/] As noted, correcting these seven errors alone reduces the switching usage rates to approximately half the "promotional" Z-Tel rates.[10/]

i. Vendor discounts

In calculating the cost of switches, Verizon failed to apply the large discounts that vendors routinely provide to switch purchasers. Instead, it applied only the much smaller

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9/ This critique hardly exhausts the list of errors in the studies. For example, Verizon relied on then-current minutes-of-use assumptions rather than a projected future minutes-of-use factor. The latter assumption failed to capture even the annual growth typical at the time Verizon undertook its cost studies, much less the growth that has occurred as a result of the phenomenal growth in the Internet over the last five years. Bryant Decl. ¶ 36 n.25.

10/ There is no Z-Tel rate for analog port charges.

discount offered by vendors for expanding existing switches.[11/] No one suggests that these smaller discounts apply to initial switch purchases.[12/] To the contrary, Verizon itself now acknowledges that switch vendors routinely provide the much larger discounts when carriers purchase switches not accounted for in its cost studies.[13/]

But when switch prices were first set, Verizon (then NYNEX) made very different claims. Verizon declined to open its vendor contracts to scrutiny in both New York and Massachusetts, and when MCI and AT&T first challenged its failure properly to account for switch discounts, Verizon falsely claimed in New York that the most recent switch discounts it had received – when it converted from analog to digital switches – should not be expected in the future and therefore should not be reflected in a forward-looking model.[14/] In Massachusetts Verizon also argued that the cost model should not rely on the actual prices it paid for switches because "if we wanted to carry this TELRIC thought experiment to its ultimate and we assumed that all people in the industry were doing this all at the same time, I would suggest we would pay much higher prices than we are today, because there would be a worldwide shortage of digital switches." Transcript of 11/6/96 Hearing, at 356 (VZ-MA App. H, Tab 119).

11/ Phase 4 Order, D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94, at 36-37 (DTE Dec. 4, 1996) ("Phase 4 Order") (VZ-MA App. H, Tab 162) (citing Verizon's testimony that it had used the discounts currently obtained for purchases of incremental additions to existing switches).

12/ Bryant Decl. ¶ 20. This SCIS model is based on list prices and therefore does not reflect any of the discounts vendors offer. Id.

13/ Declaration of Nancy Sayer, In re NYNEX Corp. And Bell Atlantic Corp., Application for Consent to Transfer Control, Tracking No. 960205, 960221, ¶ 10 (FCC filed Oct. 22, 1996) ("Sayer Decl.") (Bryant Decl., Att. 3).

14/ See Hearing Transcript, NYPSC, Case 95-C-0657 et al. at 3004-06 (Testimony of C.R. Curbelo On Behalf of Bell Atlantic) (VZ-MA App. B, Tab 455, Exh. D).

Yet in October 1996, at the same time it was telling Massachusetts regulators that reliance on its past discounts was inappropriate and unduly "speculative," in the course of the Bell Atlantic-NYNEX merger proceedings, Bell Atlantic was telling the FCC to the contrary that it should rely on the fact that it always obtains large discounts on switch purchases. In that context it testified that the Commission should assume for purposes of future planning that switches cost much less than the retail price, because "[t]he pricing structures imposed by switch vendors, including Lucent Technologies, favors the purchase of new switches, rather than switch upgrades. Vendors offer substantial discounts on new switches, but do not offer comparable discounts on switch upgrades."[15/] Its statements to the contrary in New York and Massachusetts had been misrepresentations.

Verizon denies none of this, but argues instead that since the FCC passed on its misrepresentations in New York, so it should pass on them here.[16/] It is therefore instructive to review how the two state commission's addressed Verizon's misstatements.

In New York, the Commission as an initial matter rejected NYNEX's proposed switching rates based on the inadequate discount because they were so out of line with the rates proposed by AT&T and MCI. Instead, "'appropriately exercis[ing] its power to take account of conditions in New York,'"[17/] the New York Commission selected rates closer to those proposed by AT&T, though it did not directly apply the larger discounts in adopting its compromise switching rate. Thereafter, when the New York Commission learned that it had been misled by Bell Atlantic,

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15/ Sayer Decl., ¶ 10 (emphasis added) (Bryant Decl., Att. 3).

16/ See VZ-MA Br. at 69.

17/ NY Order ¶ 245 (quoting New York Commission).

even though it had not adopted Bell Atlantic's rate in the first place, it directly confronted Bell Atlantic's false testimony, and rejected Bell Atlantic's attempt to minimize it as an "inadvertent misstatement." The New York Commission reminded Bell Atlantic on the record that its statements were "unequivocal and were made not only in discovery response and brief but also on cross examination" and were for that reason "distressing" and "disruptive of the process."[18/] It then rejected the same Bell Atlantic argument that the Massachusetts DTE later accepted – that the relevant discount is that provided for the incremental purchases of switch ports – since that argument "forgets that a Total Element Long-Run Incremental Cost (TELRIC) analysis of the sort used in these proceedings contemplates the construction of a new system."[19/]

While the New York Commission acknowledged that the existing switching rates were defective, reviewing the New York record, it concluded that piecemeal correction of the rates was not possible given the extent to which it had already modified the rate to account for Bell Atlantic's "seriously flawed" studies.[20/] It therefore agreed to review all rates promptly, but found no need to make immediate changes to correct the error, because "the switching prices at issue here are much lower that New York Telephone's retail prices, providing ample margin to competitors even at their present level."[21/]

Reviewing this process, the FCC acknowledged the many factors that went into the New York Public Service Commission judgment, and "stress[ed] that we place great weight on the

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18/ Order Instituting New Proceeding, at 9 (VZ-MA App. B, Tab 455, Exh. F).

19/ Id.

20/ Id. at 3.

21/ Id. at 12.

New York Commission's active review and modification of Bell Atlantic's proposed unbundled network element prices, its commitment to TELRIC-based rates, and its detailed supporting comments concerning its extensive, multi-phased network elements rate case." NY Order ¶ 239. See also id. ¶¶ 245-246.

In Massachusetts, in contrast, the DTE began by accepting virtually without any modification NYNEX's switching rate proposal based on the erroneous small discount. Addressing claims that the switching discount was inadequate, the DTE accepted without question NYNEX's argument that if all the BOCs had to purchase all of their switches at the same time, there would be a shortage of switches, and so the TELRIC price of switches might well be higher than the discounted prices the CLECs alleged NYNEX received.[22/] The DTE thus concluded that any cost-based calculation of switching rates would be too "speculative," since it required the DTE "to assume what manufacturers' discounts would be if a TELRIC network were being constructed today." It then accepted without any explanation NYNEX's decision to apply only the small discount which applied only to switch add-ons to all switching costs.[23/]

Worse yet, in stark contrast to the New York PSC, DTE's response to Bell Atlantic's admission of a material misstatement regarding switch discounts was to refuse to reconsider the

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22/ Phase 4 Order at 36-37 (VZ-MA App. H, Tab 162). Leaving aside that this is obviously not the kind of analysis contemplated by TELRIC, it also is entirely unfounded as an historical matter. The analog to digital switch conversions for which NYNEX received large discounts did involve all of the ILECs, and did not lead to scarcity of supply or higher prices. Moreover, the FCC also has consistently concluded that cost-based pricing must give competitors the advantages of scale economies enjoyed by incumbents. In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 F.C.C.R. 15499, ¶ 11(1996) ("First Report and Order").

23/ Phase 4 Order, at 37 (VZ-MA App. H, Tab 162).

switching rate.[24/] Indeed, rather than reconsider the rates, it decided to make them permanent, and declared that it would refuse to consider them again until December 2001.[25/] Then, as the residential competitive situation continued to stagnate, earlier this year it once again declined to reconsider the switching rate, and created ambiguity that the review would begin even in 2001.[26/]

The DTE's decision to apply only the small discounts available for switch upgrades is inconsistent with the New York PSC's decision to reject NYNEX's switching rates when they were first proposed, inconsistent with the New York PSC's subsequent decision to review rates when it learned the truth about vendor contracts, inconsistent with the FCC's chosen approach to estimating switch costs,[27/] inconsistent with TELRIC and court decisions interpreting TELRIC,[28/] and inconsistent with even an embedded cost calculation, which would have to account for the

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24/ See Consolidated Petitions of New England Telephone and Telegraph Co., Phase 4-A Order, D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94, at 8-9 (DTE Feb. 5, 1997) ("Phase 4-A Order") (not included in record attached to Verizon's application) (Bryant Decl., Att. 2). DTE's July 27, 2000 Letter Denying AT&T's Petition Requesting the Review and Reduction of UNE Recurring Charges ("DTE 7/27/00 Letter") (VZ-MA App. B, Tab 481).

25/ DTE's Order Granting BA-MA's Motion to Adopt Permanent UNE Rates, DTE 98-15 (Phase II, III), at 15-16 (DTE March 19, 1999) (VZ-MA App. F, Tab 157).

26/ DTE 7/27/00 Letter at 3-4 (VZ-MA App. B, Tab 481).

27/ This Commission, in its Universal Service proceeding, determined that a forward-looking cost estimate for switches must be based entirely on the cost of new switches, at the steep discounts vendors offer for such purchases, and not on the cost of switch upgrades at all. In re Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Tenth Report and Order, 14 F.C.C.R. 20516, ¶¶ 315-317 (1999) ("USF Tenth Report and Order"); Bryant Decl. ¶ 22.

28/ See Bell Atlantic - Delaware, Inc. v. McMahon, 80 F. Supp. 2d 218, 238-39 (D. Del. 2000) ("In the long run . . . an efficient and rational competitor would replace all of its existing switches with the most current technology and receive the bulk-rate discounts. . . . Bell's proposed switch costs, which it premised upon the smaller add-on discounts . . . [is] deficient in that it does not reflect a long-run approach.").

price of both new switches and switch upgrades. The resultant rate is grossly inflated and not cost-based.

The precise discounts available to Verizon in Massachusetts from applicable vendors is not known because Verizon, which bears the burden of proof, stubbornly continues to refuse to put its contracts on the record – even under a protective order. However, Verizon has submitted testimony in other proceedings from which it is possible to estimate the impact of applying new purchase discounts rather than upgrade discounts on Massachusetts rates. See Sayer Decl. ¶ 11 (Bryant Decl., Att. 3) (explaining that the total cost of the hardware and software for a new switch can be $55 - $60 per line, but the cost of hardware alone for adding an additional capacity would be $125 per line).

Based on the differential in discounts testified to by Verizon's own witness, WorldCom has recalculated the Verizon rates. Bryant Decl. ¶ 24. Recalculation using the discounts applicable to purchases of new switches – and changing no other input – reduces analog port rates by 55% and switching usage rates by 38% to 41%. Id. In other words, Verizon essentially doubled its rates by making an indefensible assumption, by misrepresenting facts, and by withholding the underlying contracts that would have exposed the extent of its misrepresentation.

ii. Installation factor

Verizon also wildly inflated its estimate of its cost to install switches. As is usual, Verizon calculated its estimate of its installation costs as a factor of the cost of the switch itself. But its rates are based on the implausible assumption that it must spend another 65.4% of the cost of the switch to install it. In other words, if a switch cost $1 million, Verizon would have to spend an additional $654,000 to install it in a wire center. Bryant Decl. ¶ 26. Verizon's inflation of the installation factor is particularly invidious because it builds on every overestimation in the

basic switch costs in the first place for a magnifying effect on the rates Verizon imposes on its potential competitors. Id. For example, if Verizon claims that a switch costs $1.5 million, but it really costs $1 million, the installation factor adds not only an inflated $654,000 based on the appropriate $1 million switch cost, but also another $327,000 based on the spurious half a million dollars Verizon wrongly added to switch costs.

Every other available source – including Verizon itself in another context – makes clear that the installation cost Verizon Massachusetts "estimated" for purposes of imposing costs on its potential competitors are at least six times higher than any reasonable estimate for such costs. For example, a number of ILECs, including Bell Atlantic, submitted cost estimates as part of the FCC's Open Network Architecture proceedings. Bell Atlantic's estimates included switch installation factors ranging from 6% to 10%. HAI Consulting, Inc., HAI Model Release 5.0a, Inputs Portfolio, § 4.1.8, Jan. 27, 1998 (citing Bell Atlantic's ONA filing (FCC Docket 92-91) on Feb. 13, 1992) (Bryant Decl., Att. 4).[29/]

If Verizon's rates are recalculated, changing only the installation cost estimate to a more reasonable 10% of switch costs, correction of that error alone would reduce analog port rates by 33% and switching usage rates by 23% to 25%. Bryant Decl. ¶ 29.[30/]

29/ Southwestern Bell submitted cost estimates of 8% to 12% in the same proceeding, Id. (Citing SBC's ONA filing (FCC Docket 92-91) on May 18, 1992) (Bryant Decl., Att 4). More recently, BellSouth submitted installation cost factors ranging from 5.9% to 15% in the FCC's Universal Service proceeding. Reply Comments of BellSouth Corp., In re Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Attachment 1, Ex. 2-13 (FCC filed June 12, 1998) (Bryant Decl., Att. 5). The Bell model uses a nationwide default installation factor of 5.77%. Ex Parte Letter from Pete Sywenki to Magalie Roman Salas in CC Docket Nos. 96-45 and 97-160 (Aug. 20, 1998) (attaching Bell Switch Model Inputs, page 17, April 30, 1998 edition) (Bryant Decl., Att. 6).

30/ Any claim by Verizon that its installation factor should be higher because it performs more of the installation work itself rather than relying largely on the vendor, as do other ILECs,

iii. Busy hour conversion factor/Weekend and holiday usage.

Verizon's switching usage rates are based both on calculations of the overall traffic-sensitive costs of the switch plant needed to serve Massachusetts and calculations of how many minutes switches will be in use, in order to determine what rates need to be paid per minute to provide full recovery of switch costs. Bryant Decl. ¶ 31. Therefore, the estimation of the number of minutes of use is critical. If the estimate is too low, the rate per minute will be too high – because the same switch costs will be need to be recovered from fewer minutes. Id. ¶ 32. In that situation, Verizon will recover more than its actual switch costs, because it will have recovered its full costs after the smaller number of minutes is reached, and all usage over that would be an unjustified cost imposed on its competitors, and pure gravy for Verizon.

Verizon's calculation deliberately and inexcusably underestimates the number of minutes switches will be in use, to achieve just this result. Verizon allegedly based its estimation on an undisclosed traffic sample for the month of March 1996. Id. ¶ 35. However, in calculating usage, Verizon counted only business days, of which there were 21 that month. It did not count any of the ten weekend days or holidays that month, as if no one ever used their telephones or computers on weekends or holidays. Id. ¶ 36. Verizon, nonetheless, charges its competitors for the switching their UNE customers use on weekends and holidays.

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is either implausible or irrelevant. It is implausible because if Verizon were undertaking tasks worth more than 50% of the cost of a switch, rather than requiring those tasks to be performed by the vendor, the price of the switch to Verizon should reflect an additional, substantial discount to account for that. But Verizon has not discounted the switch cost output from the SCIS model to reflect different installation terms, and its overall switch investment figures are higher, not lower, than in other states. See Bryant Decl. ¶ 27 n.18. In any event, it is not reasonable for Verizon to assume self-installation of switches if self-installation really costs six times more than vendor installations.

If Verizon's rates are recalculated, replacing only that assumption with the conservative estimate that switch usage on weekends and holidays is half of what it is on business days, correction of that error alone would reduce switching usage rates by 19.2%. Id. ¶ 37.

iv. Utilization factor

Verizon also underestimates the percentage of switch facilities that are "spare" – installed but beyond what is currently needed in determining its port rates. Some operational "headroom" is expected, to permit unexpected increases in demand or failures in equipment. But Verizon adds to the utilization factor included in SCIS, which appears to be 95%, an additional utilization factor of 85.26%. Id. ¶ 39. Thus, Verizon assumes that only 81% of switch capacity will actually be in use.

Objective evaluation results in the conclusion that significantly less "headroom" is needed. For example, this Commission has determined that 94% of the line ports on switches are available for use, and only 6% headroom is required. Id. ¶ 40

By underestimating the utilization factor, and therefore the amount of the port capacity that is deemed to be in use, Verizon increases its overall estimate of switch costs, because more port capacity is assumed to be needed to provide the same level of service. Inflating the overall estimate of switch costs increases the rates Verizon imposes on its potential competitors. For example, if Verizon had assumed a port utilization rate of 94%, as did the FCC, it would have increased its switch costs to accommodate this headroom by only 6.3%. Id. ¶ 41. By assuming that a significantly larger amount of headroom was needed, Verizon increased the assumed switching costs on which it based the rates it charges competitors by 23%. Id. ¶ 39. If Verizon's rates are recalculated, replacing its underestimated rate of 81% with the more appropriate assumption, correction of that error alone would reduce analog port rates by 13.7%. Id. ¶ 41.

v. Cost of capital

Verizon's overestimation of the cost of capital also inflated switch rates by inflating its annual switch carrying charge factor. Cost of capital is determined by calculating the cost of equity (the return on the shareholders' investment in the switches), the cost of debt to finance the purchase of the switches, and the weighting of the financing obtained from each. Id. ¶ 42. Verizon inflated the cost of capital in two ways. First, the DTE set a cost of equity factor of 13.5%. Second, Verizon assumed that 76.49% of switches were paid for by shareholders' investments and only 23.51% were paid for by borrowing. Id. ¶ 43. As is true for Verizon's installation factor, its inflation of its cost of capital factor also builds on every overestimation in the basic switch costs for a magnifying effect on its switch rates. Id. ¶ 43 n.29.

The cost of equity factor used by Verizon – 13.5% – is not cost-based. The arbitrator, and the DTE initially, made a determination as to the proper method for calculating the cost of equity. Phase 4-A Order at 5 (Bryant Decl. Att. 2). When Verizon used that method, it reached a cost of equity of 11.38%, which it then challenged as too low in a motion for reconsideration to the DTE. The DTE then arbitrarily chose a new cost of equity factor – not by application of any method of calculation, or resulting from any cost study – of 13.5%. Id.

In addition, Verizon inflated the cost of capital figure by assuming that an inordinate proportion of its switching investment was paid for by shareholders as opposed to by borrowing. These are not interchangeable categories. Equity is more expensive than debt financing and also incurs income tax costs. Bryant Decl. ¶ 45. Verizon's assumption that 76.49% of its switch plant would have to be paid for by investors and that only 23.51% could be financed by borrowing bears no relationship to its actual situation or to any forward-looking model of capital

financing. It simply serves to inflate the rates it charges competitors. The FCC has found that 44.2% of local network costs are financed through debt and only 55.8% from shareholder investment. See In re Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket No. 89-624, Order, 5 F.C.C.R. 7507, ¶ 231 (1990) ("Represcription Order").[31/]

Verizon's overall cost of capital calculation – based on these improper assumptions – is 12.16%. Bryant Decl. ¶ 44. That figure is significantly higher than the 11.25% figure this Commission has used in parallel proceedings to determine both cost estimates for universal service and costs of supplying local access to long distance carriers in its interstate ratemaking proceedings. Id. (citing USF Tenth Report and Order, ¶¶ 432-435; Represcription Order, ¶ 231). This is virtually the same cost of capital initially required by the DTE when it applied a forward-looking methodology, but later amended when NYNEX asked for a higher number to be substituted. See Phase 4-A Order at 5 (Bryant Decl., Att. 2).

If Verizon's rates are recalculated, replacing only its cost of capital assumption with the cost of capital the FCC uses, correction of that error alone would reduce both switching usage and analog port rates by 7.6%. Bryant Decl. ¶ 46.

vi. Building factor

Verizon also added a factor to its estimation of overall switch costs to cover the cost of buildings associated with switches. In calculating the building factor, however, Verizon did not merely allocate those building costs that are actually associated with switches; instead it allocated

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31/ The Commission found that the capital structure of other types of companies did not accurately depict the capital structure of RBOCs and therefore based its equity to debt ratio on the actual capital structure used by RBOCs. Represcription Order, ¶¶ 57-60 (rejecting the roughly 75% equity/25% debt structure typical of other types of companies).

all of its building costs to its estimation of switch costs, as if the company did not use any part of any building for sales representatives, engineers, collocation space for which it is already being compensated, office workers, storage, etc. Id. ¶ 48. There is no legitimate reason to do so. Verizon of course uses buildings for many purposes, not just to house switches, and a forward-looking network obviously would contain buildings that house things other than switches. Further, as is true for Verizon's installation and cost of capital factors, its inflation of the building factor escalates every overestimation in the basic switch costs to magnify the effect on switch rates. Id. ¶ 48 n.35.

Verizon's obviously improper allocation yielded a building factor of 18.35%. Id. ¶ 47. Performing the same calculation, and using Verizon's reported historic, embedded costs as listed in ARMIS, but replacing Verizon's allocation of all building costs with a generous allocation of all of its building costs that are associated with wire centers, yields a building factor of 14.61%. Id. ¶ 49.[32/] If Verizon's rates are recalculated, by substituting the 14.61% building factor based on Verizon's historic building costs, correction of this error alone would reduce switching usage and analog port rates by approximately 3.4%. Id. ¶ 50.

vii. Power factor

Verizon's calculation of the cost of generators, batteries, and other equipment supplying power to switches is more than double any reasonable estimate of these costs. Verizon claims that power supplies added an additional 10.72% to switch cost. Id. ¶ 52. But in a recent filing

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32/ An estimate for building costs associated with switching that is consistent with TELRIC would, of course, be based on a from-the-ground-up approach rather than Verizon's historic, embedded costs. Calculating these costs based on TELRIC principles yields a building factor of 14.09%. Bryant Decl. ¶ 49 n.37 (computed from the results reported for Verizon/Massachusetts by the FCC on its website).

submitted to the New York PSC, Verizon claimed that power added only an additional 5% to switch cost.[33/] Moreover, in describing this 5% power factor proposal in New York, Verizon explained that it was developed "on a region[al] basis." Id. at 53. There is no cost-based reason for a higher factor in Massachusetts. The figure Verizon used to set its rates in Massachusetts is simply unjustifiably inflated. As is true for Verizon's installation, cost of capital and building factors, inflation of the power factor builds on every overestimation in the basic switch costs for a magnifying effect on switch rates. Bryant Decl. ¶ 52 n.41.

If Verizon's rates are recalculated, replacing only the power factor Verizon used in Massachusetts with the one proposed by Verizon itself in New York, analog port rates are reduced by 5.1% and switching usage rates are reduced by over 3.5%. Id. ¶ 53.

viii. Summary

As indicated above, correcting these seven errors alone would reduce the Verizon Massachusetts rate for analog ports by more than 77% and the rate for switching usage by approximately 65%.[34/] Such gross disparity is inconsistent with cost-based rate-setting under any definition of cost-based. The rates are infected with "clear errors in factual findings on matters so substantial that the end result falls outside the range that the reasonable application of TELRIC principles would produce." NY Order ¶ 244. Indeed, these rates not only fail to reflect

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33/ Panel Testimony of Bell Atlantic-New York on Revised Costs and Rates for Unbundled Network Elements and Related Wholesale Services, Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, Case 98-C-1357, at Workpaper, Part H, Section 1, at 5 and Exhibit Part H Section 1, at 1 (NYPSC filed Feb. 7, 2000) (Bryant Decl., Att. 7).

34/ Bryant Decl. ¶ 18 (tables). Nor is this gross deficiency corrected by applying the Z-Tel usage rates, which would have to be cut in half to produce a rate that resembled a cost-based rate. Id.

forward-looking costs, they do not even reflect historic embedded costs, or any real measure of cost whatsoever.[35/]

b. Verizon's rates allow it to recover four times Verizon's actual switching investment in Massachusetts and four times the FCC's estimate of the switching investment needed to serve Verizon's territory in Massachusetts.

WorldCom's conclusion that a cost-based switching model would result in rates a small fraction of the rates derived from Verizon's model is powerfully corroborated by comparing the total cost of providing switching in Massachusetts generated by Verizon's model with two other measures of that same cost, and by comparing Verizon's switching rates to those of other BOCs across the country. These "macro" approaches leave no doubt that Verizon's estimate of the costs it needs to recover from the rates it imposes on potential competitors is not simply inflated, it is hyper-inflated – by a multiple of approximately four.

First, Verizon's cost study concludes that the total switching investment required to serve its territory in Massachusetts is $2.641 billion, including Verizon's estimate of switch costs, installation costs, power equipment, and right-to-use fees. Bryant Decl. ¶ 55 (citing Verizon's compliance filing with the DTE). Yet Verizon's own reported booked investment in its switching plant at the time it undertook the cost studies on which its rates are based was only $603 million. Id. ¶ 56. The comparison makes clear that Verizon's rates are calculated to recover more than four times the then-current value of Verizon's historic, embedded investment in switching in Massachusetts – a claim irreconcilable with any definition of cost-based rates.

35/ Thus, whatever the ultimate outcome of the currently stayed Eighth Circuit decision on pricing, Verizon's Massachusetts rates preclude approval of its section 271 application.

Second, a recent estimate from the FCC provides another measure which demonstrates exactly the same disconnect between a legitimate estimation of total costs and the estimate on which Verizon bases its rates. Verizon's estimated total switching investment required to serve its territory in Massachusetts, not including investment related to ISDN lines, is $2.125 billion. Id. ¶ 57.[36/] The total for the switching investment needed to serve Verizon's territory in Massachusetts, as determined by the FCC's model based on actual LEC switching contracts, is $491 million.[37/] This measure further corroborates our demonstration that Verizon's rates are calculated to recover more than four times the cost of providing local switching in Verizon's territory in Massachusetts – rather than complying with any cost-based standard. Id. ¶ 54.

Finally, a simple comparison with the rates in other states provides powerful evidence that something is badly wrong with Massachusetts' switching rates. WorldCom has calculated the effective switching and transport costs in approximately half the states in the nation.[38/] What that comparison shows is that most states' rates fall within a range between $0.002 - $0.004/minute/line. Leaving Massachusetts aside, only one state, New Jersey, is above four-tenths of a cent/minute, and it is just barely above four-tenths, and, more to the point, the court reviewing that rate concluded it is not cost-based.[39/] Massachusetts is starkly alone at over

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36/ To be fair to Verizon, in order to compare Verizon's estimate with the FCC's, it is necessary to subtract investment related to ISDN lines from its cost study. Id. ¶ 57.

37/ Id. ¶ 58.

38/ See Proferes Decl. ¶¶ 27-29 & attach. 2. WorldCom chose to review the largest states for its own business purposes, not because it had any sense of what their switching rates were. There is no reason to believe that analysis of the other half of the states would yield a different result. Id. ¶ 27.

39/ AT&T Communications of New Jersey, Inc. v. Bell Atlantic-New Jersey, Inc., No. 97-5762 (KSH), Civ. No. 98-109 (KSH), (D. N.J. June 6, 2000).

$0.008/minute/line.[40/] Nor is it the case that exorbitant per-minute charges are offset by low fixed charges on the switch port. To the contrary Massachusetts has one of the highest flat-rated port charges as well, easily double that of most states. Id. In total, unbundled local switching rates in Massachusetts are three to five times higher than comparable rates elsewhere in the country. There is no explanation provided for this gross discrepancy. Verizon cannot possibly be paying over four times more for its switches in Massachusetts than it is in Pennsylvania.

In sum, whether the Commission looks at the particulars of Verizon's cost study to the extent they have been put on the record, at its embedded book costs, at the Commission's own pricing model, or at comparable switching rates across the country, the result is the same. The rates are infected with "clear errors in factual findings on matters so substantial that the end result falls outside the range that the reasonable application of TELRIC principles would produce." NY Order ¶ 224.

2. Verizon Massachusetts' Transport and Loop Rates Are Not Cost-Based or Reasonable.

The gross deficiencies in the unbundled local switching rates should not mask the fact that other unbundled network element rates are also not cost-based and therefore greatly contribute to the competitive problems facing CLECs in Massachusetts. Most of the same errors that wildly inflate Verizon's analog port and per minute switching rates were made also with respect to its trunk port costs and led to per minute trunk port rates almost five times higher than cost-based rates. As with its switching rates, many of the assumptions and inputs are hidden inside the proprietary SCIS model Verizon relied on but did not submit to the DTE or permit

40/ Once again, the Z-Tel rates are nearly $0.006/minute, which still leaves Massachusetts' rates as outliers, the highest in the country.

potential competitors to assess. Nonetheless, in calculating its trunk port rates, Verizon made various adjustments to the SCIS outputs and, in doing so, inserted the same kinds of unjustifiable assumptions and inputs in calculating trunk port rates as it inserted in calculating other switch rates. The result is trunk rates imposed on its competitors that are not just somewhat higher than cost-based rates, but almost five times higher.

Correcting Verizon's failure to apply the appropriate switch discounts alone would reduce the trunk port rates by 55.56%. Bryant Decl. ¶ 71. Correcting Verizon's indefensibly high installation factor alone would reduce the trunk port rates 33.5%. Id. ¶ 70. Correcting Verizon's calculation of how many minutes of use would be available for recovery of costs, which was based on the assumption that no one makes any local calls on weekends, would reduce the trunk port rates 19.23%. Id. ¶ 72. Correcting Verizon's improperly calculated cost of capital, building factor, and power factor would reduce the rates, respectively, 7.64%, 3.42%, and 5.17%. Id. ¶¶ 73-75. Correcting all six errors would reduce Verizon's Massachusetts' trunk port rates 79.76%, i.e., by almost four-fifths. Id. ¶ 69.

In addition, the per-minute charges for unbundled local common transport are every bit as out-of-line as the switching rates, for many of the same reasons. Verizon used the same building factor, cost of capital, and busy hour conversion factor (which assumes no local calling occurs on weekends), to determine local transport rates that it used to determine local switching rates. Id. ¶ 59. Verizon also assumed an even more preposterously low utilization factor in setting the local transport rates than it assumed in setting its local switching rates. In contrast to the FCC's model, in the Universal Service proceeding which assumes that 90% of circuit equipment will be in use and 100% of fiber cable, the model Verizon developed for the purposes of determining the rates to charge its competitors assumes that only 50% of each will be in use,

and the rest spare. Id. ¶ 62. Finally, Verizon also used an inflated factor to account for the fact that cables follow roads rather than the most direct path between two points – called the route-to-air multiplier. Id. ¶¶ 66-68.

As with Verizon's "cost studies" for local switching, there is no justification for the assumptions and inputs Verizon chose in setting its local transport rates. Correcting these five errors alone would lower Verizon's Massachusetts per minute peak and off-peak common transport rates by 62.2%. Id. ¶ 60. In other words, Verizon's Massachusetts local transport rates do not merely fail the statutory requirement of being cost-based, they are almost three times higher than cost-based prices. As is true for its switching rates, the gross inflation of Verizon's transport rates is inconsistent with cost-based rate-setting under any definition of cost-based.

Additionally, Massachusetts' loop rates are approximately $1.50 higher than loop rates across the Verizon region,[41/] a comparison which suggests that the loop rates are suspect. As WorldCom and AT&T repeatedly explained before the DTE, Massachusetts' loop charges are not the "least cost network configuration" as required by TELRIC. 47 C.F.R. § 51.505(b)(2). One plain source of error was Massachusetts' 1996 decision to accept NYNEX's assertion that fiber should always be used in the feeder portion of the loop, even when the feeder length was relatively short, when it was uncontested that at short distances copper was the "least cost" technology for loop feeder. Currently, technological changes since 1996 require that when loop rates are re-considered, the appropriate question should be the proper configuration of a forward-looking loop plant in the year 2000. And there is no fair dispute that changes in digital loop carrier technology, including the use of GR-303 for significantly higher concentration, requires

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41/ Proferes Decl., Att.1. We do not mean to suggest that loop rates in other states are themselves at TELRIC.

different modeling than that contemplated in 1996, and will result in significantly lower prices. That modeling needs to be done promptly in Massachusetts.

The Commission need not address the question of whether a section 271 application should be denied because the studies supporting the rates are outdated. Here the application should be denied because the switching and transport rates have never been TELRIC-compliant. The DTE needs to reconsider those rates promptly to bring them into compliance with the law. Since there is no fair dispute that loop rates too are not now TELRIC-compliant (whether or not they ever were in the first instance), they too should be reconsidered promptly.

3. Application Of Verizon's Network Element Rates Causes A Price Squeeze And Stifles Competition.

There is virtually no UNE-P competition in Massachusetts. Verizon claims there are a grand total of 5,900 residential UNE-P customers in the state[42/] – a smaller number than WorldCom subscribes in Texas New York, and Pennsylvania on a single day. This absence of competition follows ineluctably from Massachusetts' failure to adopt cost-based pricing. Companies generally do not sell goods or services in a market unless they believe they can at some point do so profitably, and widespread residential service in Massachusetts using Verizon network elements is a losing proposition for every carrier except Verizon.

The pricing in Massachusetts is so bad for the average residential customer that even a CLEC that sells residential service for the same price as Verizon would not make enough money to pay for the cost of the elements it leases to provide the service. Verizon's wholesale price is higher than its retail price. As a result, before a CLEC even considers its own internal costs or any profit, it is already deeply under water in Massachusetts. The table attached at Proferes

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42/ Taylor Decl., Att. A. Table 1.

Decl., Att. 1, at 1, vividly describes the situation faced by a carrier that would provide UNE-P service in Massachusetts. The table describes the monthly revenue a carrier would receive if it provided a basic service with one feature at the same price Verizon charges (including revenue it would receive for providing access for intraLATA and interLATA calls), and then subtracts from that the so-called "Telco" costs, that is, the costs to lease unbundled network elements. What the table shows is that a competing carrier in Massachusetts would lose on average $10.84 each month for each customer it served, even before it considered its own costs. Those costs, including marketing costs, costs of customers who do not pay their bills, and other operational costs, are in excess of $10/month for typical carriers, and when added to the Telco costs, they show that UNE service in Massachusetts is a losing proposition of staggering proportion.[43/]

Even if a CLEC were to take advantage of the so-called "promotional" rate offered to Z-Tel (which is using UNE-P to serve a high-end niche market), the result is no different. The gross margin – the revenue a CLEC would expect to receive after paying for Telco costs, but before it considers its own internal costs and profit – is still well under water, a negative $3.73/month/line. See Proferes Decl., Att. 1, at 1. Verizon's admission that no other carrier has taken advantage of the "promotional" switching usage rates provided in the Z-Tel agreement, Mudge Decl. ¶ 12, confirms that the cost of UNEs even with the reduced Z-Tel rates for

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43/ Verizon in the past has tried to hide the debilitating effect of its pricing by adding intraLATA toll and long-distance revenues to the revenue side of the equation. But CLECs do not have to lease BOC facilities to provide intraLATA toll and long-distance service, so revenue obtained from those services has no place in a comparison meant to show how unprofitable it is to provide local service using unbundled network elements. To be sure, to provide these services, CLECs need to pay access charges to the local carrier for the use of its local facilities. Thus, as indicated above, access charge revenues (or, imputed savings from not having to pay BOC access charges) are therefore added to the potential revenue obtained from providing local service in all of WorldCom's calculations.

switching usage still precludes any broad-based entry into the residential market by leasing unbundled network elements.[44/]

And while Verizon charges a great deal more to its wholesale customers than it does to its retail customers for the same product, it is not because of artificially low retail rates. A state might theoretically set basic retail residential rates so low (and allow the incumbent to recover its costs by charging above-cost rates for other services), that CLECs could not profitably compete with the ILEC even if the UNEs were fairly priced at or near cost. Whatever the appropriate federal regulatory response should be to such a situation, it is not present in Massachusetts. Massachusetts' basic retail rates are not particularly low – indeed they are higher than the retail rates in Texas and Pennsylvania, states in which WorldCom can profitably compete for customers in a significant portion of the state even with wholesale rates that are themselves flawed in many respects. In Massachusetts, the problem is undeniably with the UNE pricing.[45/]

44/ There is only one way to enter the market relying on UNEs rates, and that is through the strategy being followed by Z-Tel, which we assume is responsible for most or all of the 5,900 residential UNE-P lines leased in the state. That strategy involves selling a high-cost, feature-rich package of local and long-distances services to customers who want such a high-end package and are willing to pay a premium for it. Thus on its webpage Z-Tel offers a $59.99/month package that includes many features, and apparently believes that in this manner it can generate revenues sufficient to cover the extraordinarily high telco costs in the state. Time will tell whether Z-Tel is successful with this strategy. What is clear now is that this is a niche product for a small niche market, and could never be the basis of providing a broad-scale alternative to Verizon's local service. See Proferes Decl. ¶ 25 n.5.

45/ Nor do the Friday the 13th switching rates appear to change the competitive landscape. While no reliable analysis of any kind can be performed on Verizon's new numbers in this short a time, preliminary analysis of the new switching rates suggests that they do not produce margins that would support competition in Massachusetts. Proferes Decl. ¶ 44 & n.9. Like the Z-Tel rates that preceded them, the new rates appear to be little more than a cynical effort to win section 271 entry without offering any prospect of local residential competition to the great majority of the state's consumers. While the New York and Texas rates are just good enough to allow competitive entry, Massachusetts' new rates appear to be bad enough to prevent it. That, of course, makes all the difference in the world.